

WHAT IS CLAIMED IS:

1. An X-Y address type solid-state image pickup device, comprising:

a pixel region including a photoelectric transducer for performing photoelectric conversion of incident light, a reset transistor for resetting the photoelectric transducer, an amplifying transistor for converting an electric charge stored in the photoelectric transducer into a voltage, and a horizontal selection transistor for outputting the voltage as image data to a vertical selection line on the basis of a horizontal selection signal outputted to a horizontal selection line; and

a kTC noise reduction circuit for reducing a kTC noise generated at a time of the resetting.

2. An X-Y address type solid-state image pickup device according to claim 1, wherein the kTC noise reduction circuit uses an element in the pixel region as a part of a circuit structure at a time of a kTC noise reduction operation.

3. An X-Y address type solid-state image pickup device according to claim 2, wherein the kTC noise reduction circuit includes a circuit switching transistor for electrically connecting the element in the pixel region at the operation time and for electrically separating the element in the pixel region at a non-operation time.

4. An X-Y address type solid-state image pickup device according to claim 3, further comprising a reset voltage supply line which is formed outside of the pixel region and along the

vertical selection line, and supplies a reset voltage to the reset transistor.

5. An X-Y address type solid-state image pickup device according to claim 4, wherein

the kTC noise reduction circuit includes a first differential transistor constituting a differential amplifier at the operation time, and

the amplifying transistor in the pixel region is used as a second differential transistor forming a pair to the first differential transistor at the operation time of the kTC noise reduction circuit.

6. An X-Y address type solid-state image pickup device according to claim 5, wherein the circuit switching transistor is provided between the first differential transistor and the vertical selection line.

7. An X-Y address type solid-state image pickup device according to claim 6, wherein the kTC noise reduction circuit includes a current mirror circuit in the differential amplifier.

8. An X-Y address type solid-state image pickup device according to claim 7, wherein the current mirror circuit is connected to the reset voltage supply line.

9. An X-Y address type solid-state image pickup device according to claim 1, further comprising a noise cancel circuit to remove a fixed pattern noise superimposed on the image data, wherein a circuit in the kTC noise reduction circuit except

for an element in the pixel region is disposed in the noise cancel circuit.

10. An X-Y address type solid-state image pickup device according to claim 9, wherein the noise cancel circuit includes a correlated double sampling circuit for holding an electric charge corresponding to the image data after removal of a noise for each vertical selection line.

11. An X-Y address type solid-state image pickup device according to claim 5, further comprising an offset correcting circuit for correcting an offset voltage changing in accordance with a wiring distance between the amplifying transistor and the first differential transistor.